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TO EDITORS.

The University Farm Press News is prepared with a sole view to the use of the matter in its columns by the editors of Minnesota papers. It has no subscription list, and is not sent to farmers. The endeavor is to fill its five columns with short articles relating to the various phases of rural life and industry—articles which every intelligent farmer will read with satisfaction, but which we want him to read in your paper, not in ours. You are at liberty to use the articles with or without credit or name of author—as editorials or as clippings, just as you may prefer.

Improving the Farm Home—II.

Few things will contribute more to the comfort and "sanitation" of a home than an ample supply of running water. This is one of the substantial attractions of the city home. That it is found in comparatively few farmsteads is a reproach to the thrift of the owners, as well as to their characters as husbands and fathers. For a supply of running water is not only a household convenience, but it is a money-saver in numerous ways. In the mere matter of watering cattle, it will not only make a large saving of labor; but, in connection with some simple apparatus for warming water in the winter, it will increase the flow of milk in dairy cattle and cause fattening beeves to lay on far more flesh than when their drink is limited and when such as they have is given them icy cold.

The economies it will effect on even a moderate-sized farmstead will amount to a good deal more each year than the interest on an investment of $500; and only rarely would the outlay for its installation amount to so large a sum as that. Forest Henry, in a recent article, figures that—a well being already available—the cost may be kept within $200; which includes a $100 windmill; 100 feet of 1 1-4 inch pipe, connecting with house and barn, and cost of laying same below the frost-line; the building of a cistern; a small stock-tank; float valves and sundries. The interest on $200 at 6 per cent is only $12 a year. It is safe to say that any farmer, with an ordinary "bunch" of cattle, loses several times that amount, in butter or beef product alone, from the limitation of the amount of water which is inevitable where much labor is involved in watering the animals. All this without taking account of the gain which comes from slightly warming the water given the cattle—something very easily done by setting a coil of the supply pipe inside a small stove—or of the conveniences, the improved healthfulness, and the saving of labor in the house, which accompany the introduction of running water.

The question with most farmers is really not whether they can afford an equipment for running water, but whether they can afford to go without it. Those who have installed such an equipment are usually prompt in answering this question with an emphatic negative.—C. R. Barns, University Farm.

Corn Acreage—II.

Desirable as it is that the production of corn in Minnesota should be increased, it is equally desirable that measures be adopted for increasing the product per acre. For the average product, in the state at large, for a number of years past, has been only about 30 bushels per acre; and it is clearly shown, by the records of careful experiments, that, at the average market price, this will barely pay the cost of seed, labor, depreciation in machinery, and rental value of the land. Thirty bushels may give the farmer a laborer's hire, and interest on his investment merely; but, if he wants a "business profit," he must secure a larger yield per acre. Without providing for such larger yield, a mere increase in the number of acres will be of small account.

Yet many farmers, who would without hesitancy undertake to plant more acres with corn, "shy" at the imagined amount of trouble and "puttering" involved in the careful selection of seed-ears, and in the ear-to-row test; also at the amount of labor in the cultivation urged as necessary to secure the best results. But it can be shown that—supposing the farmer to have heretofore cultivated forty acres—the amount of labor and expenditure necessary to cultivate say ten additional acres, on the old plan, is far greater than is required for all the processes of selection, testing and extra cultivation, to make the original forty acres yield from 25 to 100 per cent more than formerly per acre. And, under these improved methods, the farmer makes a clear business profit, in addition to his wages and interest, very nearly equal to the whole selling price of the product in excess of 30 bushels per acre. If that excess be only 10 bushels per acre, and the price of corn at the farm only 40 cents, the profit on 40 acres is $160. If the excess be 30 bushels—and a crop of 60 bushels per acre, under the improved methods, is an easy possibility—then the "business profit" on the 40 acres, with corn at 40 cents, is $480.—C. R. Barns, University Farm.

Timber Plantations.

With the existing danger from forest fires and the excessive taxation now imposed on standing timber, there is little encouragement for the private owner to establish timber plantations for the production of saw logs in the so-called forest sections of the state, but such plantations are a safe and paying investment in the prairie sections. Such prairie plantations should be planned to furnish cordwood for fuel, fence-posts and rough dimension timbers for farm buildings and repairs; and, in a few cases, saw-logs for finished lumber.

In the formation of such plantations there are a few important points which should be kept in mind: First, that the species of value for these purposes are not generally hardy on the open prairie. To assure their success, a windbreak of willows should be started at least two years ahead of them, on the north, west and possibly on the south. The willows will grow much faster than the other trees, and will effectually protect them. Second, the proper species should be chosen. Elm, Hackberry and Green Ash make good cord-wood; black locust is an excellent fence-post wood; and Jack Pine makes good dimension stuff and the best of kindling. All of them will do well on the prairies when protected. Third, plant close together in the rows, and place the rows far enough apart to permit thorough cultivation—say eight feet. Fourth, cultivate often, and as well as it can be done without breaking the trees. Fifth, thin out the trees gradually as they begin to crowd each other; but do not make too big holes in the grove. The branches should touch, but not crowd.

In this way a plantation can be very successfully maintained, and some straight, tall, clean-stemmed trees produced. The grove should begin to furnish some cord-wood in eight or ten years.—E. G. Cheyney, Division of Forestry, University Farm.

Comparative Feeding Value of Clover and Timothy Hay.

Prof. Ralph Hoagland, of the Division of Agricultural Chemistry, Minnesota University Farm, has recently tabulated the results of numerous analyses of Red Clover and Timothy Hay, made to determine their comparative feeding value in the fattening of live stock. The figures below show the number of pounds of digestible nutrients in one ton each of Clover and Timothy, respectively:

Nutrients	Clover	Timothy	Difference in favor of Clover
Ash	89.9	72.9	+17.0
Fat	38.0	24.5	+13.5
Protein	150.2	65.9	+84.3
Crude Fiber	290.7	418.6	—127.9
Carbohydrates	552.6	462.5	+90.1

The results here presented show conclusively the superiority of clover in feeding value. Clover contains over twice as much digestible protein, and considerably more digestible fat and carbohydrates, than timothy hay.

Clover is especially suited for young stock and milch cows, while Timothy is more used as a feed for horses. Its market value for this last purpose is so high as to forbid its profitable use for general stock feeding, since the same amount of nutrients can be purchased in other feeds for less money.

English Beef Pudding.

3 pounds of beef—cheap cut of round.
½ pound of beef suet.
1 quart of flour.
2 teaspoonfuls of baking powder.
½ teaspoonful of salt.
1¾ cups of milk or water.

Cut the meat in pieces about 1-inch square.

Put the suet through the food-chopper and mix it with the flour, with which the baking powder and salt has been sifted; add the liquid, roll the dough to about one inch in thickness, having it round in shape. Lay it on the pudding-cloth, which has been wrung from boiling water and dredged with flour to prevent the pudding from sticking.

Spread over the dough the meat and a little suet (if the meat has little fat in it); dust with salt and a very little pepper; roll the dough as for a roly-poly; tie securely in the pudding-cloth; plunge into boiling water and boil three hours; keeping the pudding floating during the entire time of cooking. If necessary to add extra water, be sure that it is boiling.

On removing from the water, open the bag immediately and turn the pudding onto a hot platter. Cut a slit in the pudding, and if it does not seem to have sufficient moisture, pour into it a little stock or drawn butter.

Half of the materials called for in the above receipt make a pudding large enough to serve six hungry persons. It forms an excellent substitute for a roast, and is much less expensive. Such a pudding, carefully prepared and served on a large platter garnished with cranberry jelly, might take the place of the Thanksgiving turkey.

The writer served it as a surprise dinner for a number of friends, and it was pronounced delicious by all.—Mary L. Bull, Extension Division, University Farm.

The Industrial Contest and the New Education.

The inertia—not to say the direct opposition—of old-line teachers, makes itself felt in the presence of the demand that the schools shall be made to serve as centers for the training of youth in the practical affairs of rural life, rather than for imparting some species of book-learning for which only moderate use can be found outside of city pursuits.

This opposing attitude is entirely natural in view of the fact that the old learning is in too many cases all that the teachers possess. The new learning calls upon them, as it were, to supply goods which they haven't "in stock." To supply these, they must themselves again become students. Happy the teacher in whom the student spirit has not yet died out; who perceives the necessities of the new era; who can divest herself of the superstition that training in "practical things" is not scholarship, or that the best development of any set of faculties can only be secured through adherence to an ancient curriculum; and who eagerly seeks the fountains of those new knowledges the possession and application of which is to make farm life the most attractive and elevating, as well as the most useful, type of existence.

The Industrial Contests now being promoted in all parts of Minnesota, by the Extension Division of the School of Agriculture, are doing much to kindle among the young a desire for the new learning, and to familiarize them with its basic principle—that any educational acquirement is to be valued according to its practical usefulness in the affairs of life. The more useful it is, the more it is likely to be clothed with the power of quickening both intellect and imagination. Away with the fictitious distinction which some seek to make between the vocational and the cultural! All study is cultural, whether its results be seen in the work of voice, or pen, or trained hand! In the propagation of this idea, the Industrial Contests are doing a work for the state perhaps even greater than that whose results are already to be seen in the quickened interest of many a community in the securing of better crops and the bettering of the internal conditions of the farm home.

Furthermore, the glimpses which our young people obtain, through these Contests, of the practical quality of the education afforded by the School of Agriculture, are stimulating in a marked degree the desire for all the advantages to be enjoyed in such an institution. The Contests are thus becoming, in a way, forerunners of a demand which will probably never be satisfied until an institution like that at St. Anthony Park shall have been established in every congressional district in Minnesota. It is to be hoped that the bill introduced by Senator A. D. Stephens, looking to the ultimate establishment of such a system of congressional district Agricultural Schools, will meet the support of all the friends of advanced Agricultural education in the next legislature. Its passage would no doubt powerfully influence Congress in its action upon the "Davis Bill," which provides for the contribution of a liberal sum annually, from the Federal treasury, for the support of industrial education in all secondary schools in the state.—C. R. Barns, University Farm.

The Willow on the Farm.

The rapid growth and hardiness of the Willow-makes is almost invaluable on the prairie. It is not always a thing of beauty, and it has the objectionable feature of shedding its smaller branches—especially when the tree gets old—and making a litter on the ground. However, the prairie farmer usually wants protection first, and can afford to wait a while for the beauty. The Willow is about the only tree which can give him that desired protection in a short time.

The first planting of willows should usually be made in the form of a wind-break. To obtain the best results, two rows of cuttings should be planted, about eight feet apart and one foot apart in the rows. This makes the plants closely crowded in the rows, with plenty of room between the rows to cultivate; and for the first two or three years they should be cultivated as regularly as corn. The full sunlight from the sides causes them to spread sideways, with many branches from the ground up. They soon form an impenetrable hedge.

If allowed to grow to old age in this way, the lower branches, heavily shaded, become infected with insects and die out, thinning out the windbreak near the ground, where it is often most needed. This is usually the cause of the frequent complaints of the willow windbreak. It is very easily avoided. When the trees are four or five years old, cut one row off about two feet from the ground or lower, and trim off the dead limbs. This should be done in the winter or early spring, before growth has started. The following spring the stumps will put out a mass of sprouts, and the growth will be very rapid. By alternately cutting back one row and then the other, the branches can be kept green and dense clear down to the ground; nor will there be so much litter from a growth of this kind.

Probably the most successful species for this state, especially in the southern portion, is the Russian Golden Willow. The laurel-leaf is also widely used in the Northwest.

Occasionally it is desirable to have a willow on the lawn for ornamental purposes; but usually much prettier, longer-lived and more satisfactory species can be grown for this purpose in the protection of the windbreak. The willow is a good pioneer tree on the prairies, and is useful as no other species can be; but it should not be made to answer purposes for which other trees are better suited.—E. G. Cheyney, Division of Forestry, University Farm.

Results of Corn Testing.

Had the farmers of Nebraska, in the spring of 1910, planted their fields with untested seed corn from the crop of the year before, as they had been accustomed to do, it is figured that there would have been a shortage of 25,000,000 bushels in the crop of that state for this year. But fortunately the Commercial Club of Omaha discovered the poor germinating quality of the 1909 crop. Tests showed that only 57 ears out of an average of 100 would furnish seed which it would be certainly safe to plant. The alarm spread, and vigorous measures were taken to secure the planting of only tested seed, in every part of the state. As a result, instead of a threatened deficiency of 25,000,000 bushels, the Nebraska crop is estimated at 10,000,000 more than that of the year before. With such a showing, what farmer will venture, hereafter, to plant untested seed?

"Why I Want to Leave the Farm."

Mr. Joseph Chapman not long ago offered a series of prizes for the best essays on the above topic. Mr. Charles M. Loring, of Minneapolis, thinks that along with this discussion there should go a discussion of the counter proposition. Therefore, for the best articles on the topic, "Why I Remain on the Farm," he offers $100 in prizes, as follows: 1st, $20; 2d, $15; 3d, $10; next ten best, $5 each; 14th, $3; 15th, $2. The competition is open to all Minnesota boys and girls in the seventh and eighth grades, living on a farm. Essays must be written on ruled paper. They should not exceed 500 words in length. Each must be marked with the name, age and post-office address of the writer, and mailed so as to reach the Extension Division, St. Paul, not later than Jan. 1, 1911.

The impression which the advanced teachings of our Farmers' Institutes, and the discussions in our Farmers' Clubs, are making on the girls as well as on the boys of Minnesota, is fairly illustrated in an essay on "Cattle," written by a girl of 15, named Edith Carll, in a Mower County competition. The essay shows a remarkably clear knowledge of the distinctive points of the different breeds of cattle, and is illustrated by some creditable water-color sketches. But the most interesting thing about it is that the young author should have found the subject an attractive one, and preferred it over the conventional themes which are usually selected by girls. The incident is one of happy augury. The interest of our modern Rebeccas in their father's herds will be as advantageous to the latter as when the original Rebecca was found by Isaac directing the watering of her father's kine.

The Minnesota Experiment Station has found bran to be an excellent feed to combine with corn fodder and timothy or wild hay, as a ration for the milch cow.

Water, says the North Dakota Experiment Station, being a non-conductor of heat, will prevent deep freezing of the ground. Therefore a dry soil will freeze deeper than a moist one.

Trees may be protected from injury by rabbits and mice, says the North Dakota Experiment Station, by keeping litter away from them and painting the trunk with a white-wash to which Paris green has been added. They may also be protected by wire screens.

Raw feeds,—with the exception, perhaps, of potatoes,—are generally thought by experiment stations to produce more pounds of weight when fed to live stock, than cooked feeds. Extension experiments, in North Dakota, show that potatoes give better returns in flesh when cooked than when fed in the raw state.

"Study," like "education," is clothed with a new meaning in the industrial schools of today. Formerly it applied to work with books alone. Now it is quite as appropriately applied to the observation and comparison of processes and results, mechanical as well as natural.